Amy Campbell

EO for Health Services: Using Essential Climate Variable time-series data tc forecast water-borne disease outbreaks

Friday 10:20-10:25

As climate change transforms the planet, it also drives the dynamics of climate-sensitive diseases, such as water-borne diseases caused by Vibrio bacteria. To understand these dynamics, we require retrospective EO time series data on relevant climate variables to understand associations and facilitate predictions of future outbreaks. Recent work exploring our capabilities to forecast cholera outbreaks from space have promising results, highlighting the benefits of EO Climate Data Records, and set standards that allow them to be used in combination, for public health mitigation. Future challenges include continuous dataset generation, the opportunities of near real-time EO data to predict outbreaks, and moves towards understanding evolutionary responses of climate-sensitive diseases to climate change. .

University of Durham

Fred Worrall

Earth Observation Peatland Observatory for assuring and targeting peatland restoration

Friday 10:25-10:30

The Observatory will provide data services to assure peatland restoration across the large areas of the UK peatlands (~1800000 ha) and help land managers target future restoration activity.
The facility will also enable scientific hypotheses to be tested on the role of peatland restoration in combatting the impacts of climate change.
Project core elements:

• DataCube facilities, user interface, algorithms and analytics services from optical and reanalysis datasets including a peatland recovery tracker developed at Assimila UK

• Earth observation datasets and analysis, particularly land surface temperature, by NCEO

• The University of Durham is leading on calibration of data based on field data from peatland sites engagement with peatland land managers for user requirements.

• Ordnance Survey are leading the collaboration and are providing geospatial expertise and ensuring interoperability with Crown data.

Assimila

Gerardo Lopez-Saldana

Utilising Earth Observation in international and domestic services that enhance the global food supply chain's climate resilience

Friday 10:30-10:35

The food supply chain Space4Climate Task group is working collaboratively with a UKRI UK Climate Resilience Programme embedded researcher to map existing and future EO capability suitable for use in food supply climate risk disclosure, stress-testing, monitoring and decision support including within National and Sub-National Government in climate action for improved climate resilience. The group are in the process of developing several demonstrators with users from international initiatives such as GEOGLAM, data intermediaries and directly with agricultural land managers.

Gerardo will provide a brief overview and the group's reflections on challenges they have faced to date including difficulties in obtaining ground data and the need for demos and success stories to persuade those perhaps more reluctant to uptake the use of climate data.